

January 28, 2021

Arizona Department of Environmental Quality
Water Quality Compliance Section
Mail Code 5415B-1
1110 West Washington Street
Phoenix, Arizona 85007

Attention: Tracy Bunch

Subject: Fourth Quarter 2020 Monitoring Report
Aquifer Protection Permit No. P-101704, LTF 76820

Dear Mr. Bunch:

Florence Copper Inc. (Florence Copper) is submitting this report in accordance with Section 2.7.4.2 of Aquifer Protection Permit (APP) No. P-101704, LTF 76820, dated December 8, 2020, for the Florence Copper Project.

Background Information

The Florence Copper Project is an in-situ copper extraction facility subject to three related permits issued by the Arizona Department of Environmental Quality (ADEQ) and the U.S. Environmental Protection Agency (USEPA).

APP Covering the 1997-98 BHP Pilot Facilities and Future Operations (Sitewide APP):

- ADEQ APP No. P-101704, LTF 76820, dated December 8, 2020.

The authorized facilities and monitoring wells are identified on Figure 1, and the configuration of the Production Test Facility (PTF) wellfield, which was incorporated into the amended December 8, 2020 permit, is shown on Figure 2.

Prior to the amended permit issued on December 8, 2020, the Florence Copper Project was regulated under APP No. P-101704, LTF 65804 dated October 13, 2017.

In 1997, a BHP test wellfield, a small leachate processing facility, and a double-lined evaporation pond were constructed as authorized by APP No. P-101704 in 1997. The Pilot Test Facility operated from October 31, 1997 to February 9, 1998. The test area was rinsed until September 1, 2004. Cessation of hydraulic control for testing was approved by both agencies and the wellfield has since remained inactive. Subsequently, no Sitewide permit related activities took place until the issuance of the amended permit on December 8, 2020.

Permits Covering the Current Production Test Facility (PTF):

- ADEQ Temporary APP No. P-106360, LTF 86828, dated December 16, 2020¹, and
- USEPA Underground Injection Control Permit (UIC) No. R9UIC-AZ3-FY11-1 dated December 20, 2016.

These permits authorize operation of the PTF and set forth separate monitoring requirements to be applied at the PTF, which lies within the area covered by the Sitewide APP. The Temporary APP and UIC facilities and monitoring wells are identified on Figure 1. The facility received authorization to proceed with pre-operational activities on July 13, 2017. The PTF wellfield was completed and began operations on December 15, 2018. The rinsing activities for the PTF began on June 26, 2020. Solutions from the wellfield continued to be processed through the Solvent Extraction/Electrowinning (SX/EW) plant to produce copper in the fourth quarter (Q4) until October 29, 2020. Wellfield rinsing activities will continue into 2021.

This report documents monitoring activities required by APP No. P-101704, LTF 76820 during Q4 2020 following the issuance of the amended permit on December 8, 2020. Reporting for the Temporary APP, UIC, and previous Sitewide APP is performed separately; however, some information pertains to multiple permits and is reported accordingly.

Annual Report

Section 2.7.4.1 of the permit requires that an annual report presenting updates to the groundwater model and the results of any liner assessments be submitted no later than 30 days following the end of the calendar year. In accordance with Section 2.5 of the permit, monitoring and data collection to support the annual reporting requirements will begin in 2021 (the first full monitoring period following permit issuance). Therefore, the first annual report will be submitted in January 2022.

In-Situ Copper Recovery (ISCR) Operations and Monitoring Quarterly Reporting

- **Section 2.7.1 – Self-Monitoring Report Forms (SMRFs)**

In accordance with Section 2.5.3.5 of the permit, quarterly compliance groundwater monitoring will commence during Q1 2021 (the first full calendar quarter following permit issuance). Therefore, no SMRFs are required for the Q4 2020 reporting period.

- **Section 2.7.4.2.1.1 – Graphical Representation of Injected and Recovered Volumes**

The daily cumulative injection and recovery volumes, and the daily percent recovery to injection volume values are provided in tabular and graphical format in Attachment 1. Throughout the monitoring period, the extracted volume has consistently exceeded the injected volume by 6 percent or more.

- **Section 2.7.4.2.1.2 – Graphical Representation of the Hydraulic Gradient in the ISCR Wellfield**

The daily average head measurement values for the observation wells and recovery wells are provided in tabular and graphical format in Attachment 2. The hydraulic gradient has been maintained with a greater than 1-foot differential as a daily average for all paired PTF wells throughout the monitoring period.

¹ Note that the Temporary APP permit expired in December 2020, and future monitoring of discharging facilities covered by the Temporary APP permit has been incorporated into Amended APP P-101704.

- **Section 2.7.4.2.1.3– Monthly Potentiometric Surface Maps**
In accordance with Section 2.5 of the permit, monthly potentiometric surfaces maps will be prepared beginning in January 2021 (the first full monitoring period following permit issuance) and be provided in Attachment 3 of the Q1 2021 quarterly compliance monitoring report.
- **Section 2.7.4.2.1.4– Well Bore Annular Conductivity Device (ACD) Readings**
In accordance with Section 2.5 of the permit, quarterly ACD monitoring will commence in Q1 2021 (the first full monitoring period following permit issuance), the results of which will be included in Attachment 4 of the Q1 2021 quarterly compliance monitoring report.
- **Section 2.7.4.2.1.5 – Summary of Pressure Transducer and Fracture Gradient Readings**
Monthly maximum, minimum, and average injection pressures for the monitoring period are provided in Attachment 5. There were no exceedances of the fracture gradient during Q4 2020.
- **Section 2.7.4.2.1.6 – Graphical Representation of Fluid Electrical Conductivity (EC) Readings from Injection and Observations Wells**
Fluid EC values are provided in tabular and graphical format in Attachment 6. As expected, fluid EC in the injection and observation wells were comparable during the monitoring period. Throughout the monitoring period the PTF wellfield was being rinsed, and no injection of ISCR fluids took place.
- **Section 2.7.4.2.1.7– Description of Deviations from Standard Sampling Protocols**
No sampling was performed under this permit during Q4 2020, therefore there were no deviations from standard sampling protocols.
- **Section 2.7.4.2.1.8– Summary of all Exceedances of Alert Levels (AL), Aquifer Quality Limits (AQL), Action Levels, Discharge Limits, or Operational Limits**
There were no exceedances of ALs, AQLs, action levels, discharge limits, or operational limits during Q4 2020.
- **Section 2.7.4.2.1.9– Time versus Concentration Plots of Select Groundwater Parameters**
In accordance with Section 2.5.3.5 of the permit, groundwater monitoring will begin during Q1 2021 (the first full calendar quarter following permit issuance). Time versus concentration plots for each point of compliance (POC) well will be prepared following the Q1 2021 sampling event and be provided in Attachment 7 of the Q1 2021 quarterly compliance report.
- **Section 2.7.4.2.1.10 – Groundwater Elevation Contour Maps**
In accordance with Section 2.5 of the permit, monthly groundwater elevation contours maps will be prepared beginning in January 2021 (the first full monitoring period following permit issuance) and be provided in Attachment 8 of the Q1 2021 quarterly compliance monitoring report.
- **Section 2.7.4.2.1.11– Fissure Inspection Summary**
In accordance with Section 2.5 of the permit, quarterly fissure inspections of the PTF wellfield and ISCR area will be conducted beginning in Q1 2021 (the first full monitoring period following permit issuance).
- **Section 2.7.4.2.1.12– Table of Wells in the Discharge Impact Area**
A table of all monitoring wells within the Discharge Impact Area, including location, depth of well, depth to water, and water level elevation is provided in Attachment 9.
- **Section 2.7.4.2.1.13 – Summary of All Monitoring Wells Replaced**
No monitoring wells were replaced during the monitoring period.

- **Section 2.7.4.2.1.14 – Groundwater Sampling Results for POC wells**
In accordance with Section 2.5.3.5 of the permit, quarterly compliance groundwater monitoring will commence during Q1 2021 (the first full calendar quarter following permit issuance), the results of which will be provided in Attachment 10 of the Q1 2021 quarterly compliance monitoring report.
- **Section 2.7.4.2.1.15 – Copies of Reports Submitted to the USEPA for the UIC**
As required, a copy of the quarterly monitoring report submitted to the USEPA for UIC Permit No. R9UIC-AZ3-FY11-1 is being submitted under a separate cover.
- **Section 2.7.4.2.1.16 – Resource Block Status Report**
A resource block status summary table is provided Attachment 11.
- **Section 2.7.4.2.1.17 – Monthly ISCR Wellfield Water Analytical Results**
Not applicable. The wellfield water treatment system was not yet installed during the monitoring period. Results for future monthly monitoring events, which are anticipated to begin in January 2021, will be included in Attachment 12 of the quarterly compliance monitoring reports.
- **Section 2.7.4.2.2 – Well Abandonment Report**
No wells associated with this permit were abandoned during Q4 2020 or are currently anticipated to be abandoned; therefore, no abandonment report is required for this monitoring period. For future quarterly compliance reports, the Well Abandonment Report will be provided in Attachment 13.

Operational Requirements and Best Available Demonstrated Control Technology Monitoring

The following items address additional operational and monitoring requirements. Some requirements necessitate filing special reports with ADEQ in the event that certain conditions occur. Others require only that relevant information be placed in logs that are to be maintained on site.

In accordance with Section 2.5.2 of the permit, permitted facilities are inspected for the performance levels listed in Section 4.2, Table 10 of APP No. P-101704. Records of operational monitoring and inspections are maintained in the facility log. A summary of the operational status of the listed facilities is presented in Table 10 below. Weather and road conditions may have precluded daily observations on a small number of occasions due to safety concerns.

Table 10. Operational Monitoring and Inspections for APP No. P-101704, LTF 76820

Facility Category	Facility Name	Operational Inspection
Process solution impoundment	PTF process water impoundment PLS pond Raffinate Pond BHP Copper evaporation pond Water impoundments 1 through 5	At present, only the PTF process water impoundment and BHP Copper evaporation pond have been constructed. The PTF process water impoundment was compliant with the operational monitoring requirements throughout the monitoring period. The BHP Copper evaporation pond has not yet become operational. On November 11, 2020, Florence Copper submitted an engineering report describing the condition of the pond to ADEQ. The report is currently pending approval.
Lined Non-Stormwater Containment Pond	PTF run-off pond Run-off pond	At present, only the PTF run-off pond has been constructed. The PTF run-off pond was compliant with the applicable operational requirements during the monitoring period.
Stormwater control structures	Sitewide stormwater ditches	Monthly inspections to begin in January 2021 in accordance with Section 2.5.
Groundwater monitor wells	Sitewide monitoring wells	Quarterly inspections to begin in Q1 2021 in accordance with Section 2.5.
Pumps	Barge pumps Run-off transfer pumps Sump Pumps Discharge Pumps	The only applicable operating pump is the sump pump at the PTF process water impoundment. It was compliant with the operational requirements throughout the monitoring period.
In-situ area injection and recovery resource blocks	PTF wellfield ISCR area	No leakage from pipelines, manifolds, or wellheads was reported during the monitoring period.
In-situ area injection and recovery resource blocks	PTF wellfield ISCR area	Quarterly inspections to begin in Q1 2021 in accordance with Section 2.5.
Notes: ADEQ = Arizona Department of Environmental Quality ISCR = In-situ copper recovery PLS = pregnant leach solution PTF = Production Test Facility		

The contents of this report are believed to be accurate and complete based upon the data submitted to me and reviewed by me. Please call me at (520) 316-3710 should you have any questions concerning this report.

Sincerely,
Florence Copper Inc.

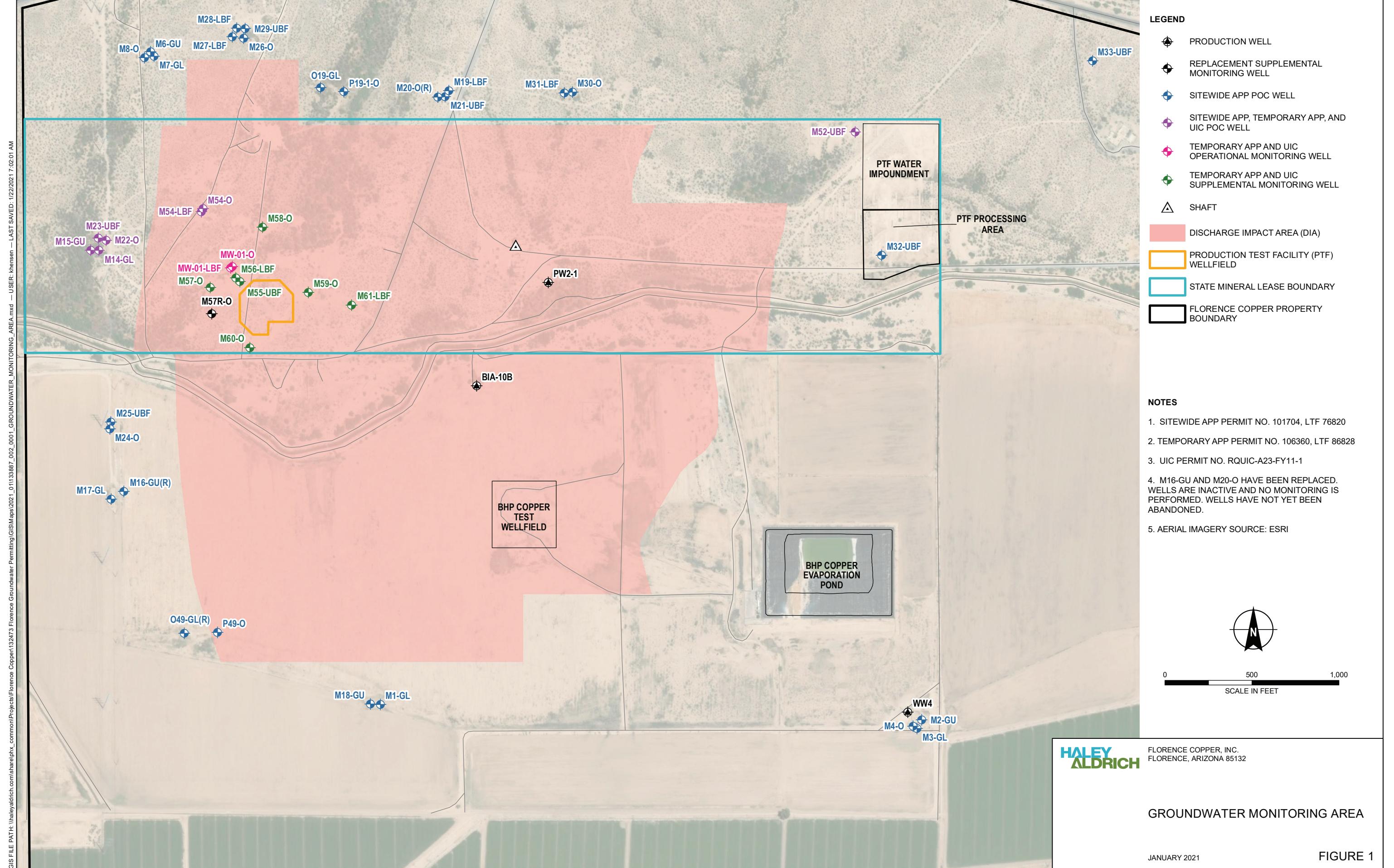


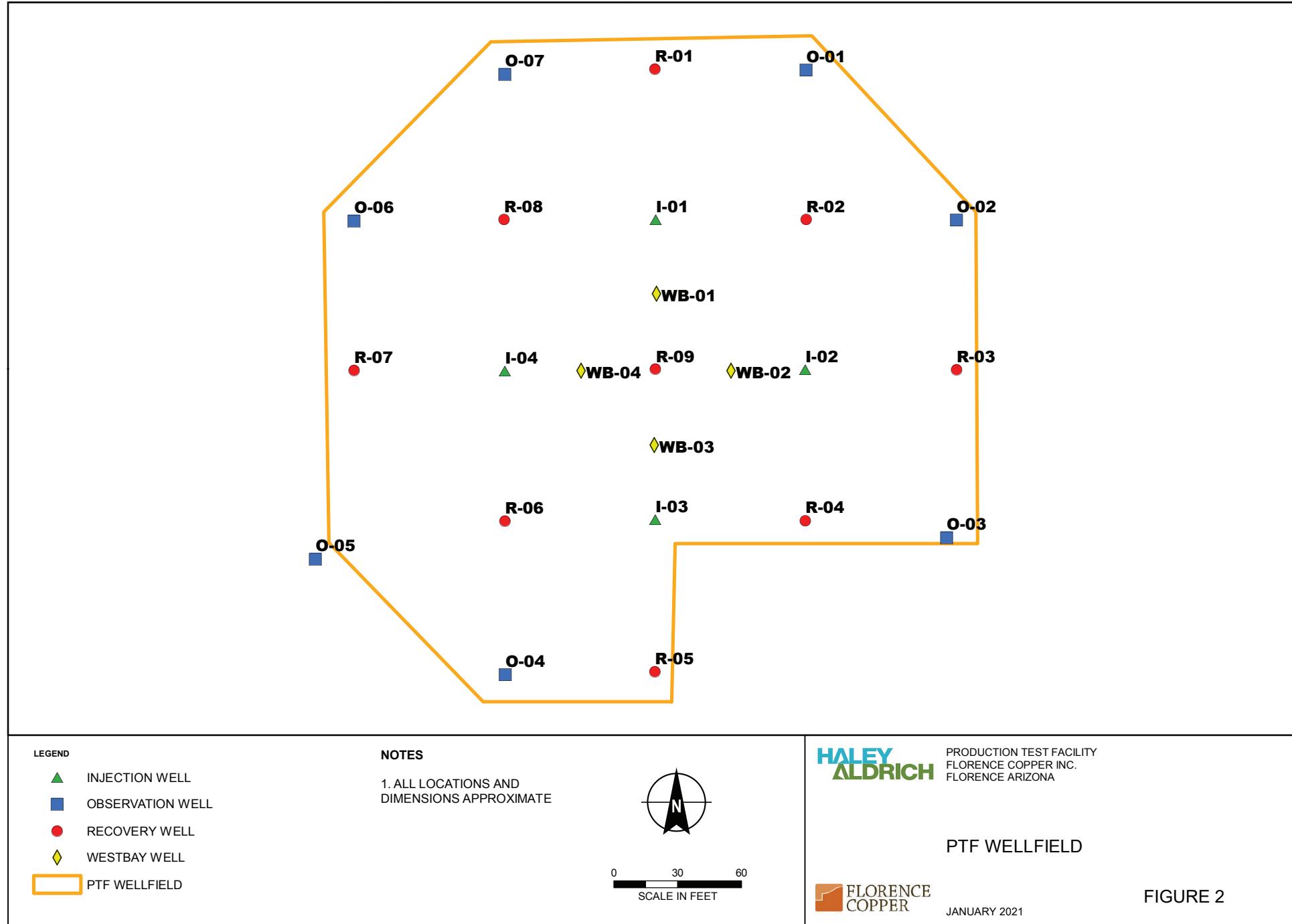
Brent Berg
General Manager

Enclosures:

- Figure 1 – Groundwater Monitoring Area
- Figure 2 – PTF Wellfield Configuration
- Attachment 1 – Graphical Representation of Injected and Recovered Volumes
- Attachment 2 – Graphical Representation of the Hydraulic Gradient in the ISCR Wellfield
- Attachment 3 – Monthly Potentiometric Surface Maps, Placeholder – Not Applicable for this Monitoring Period
- Attachment 4 – Well Bore Annular Conductivity Device (ACD) Readings, Placeholder – Not Applicable for this Monitoring Period
- Attachment 5 – Summary of Pressure Transducer and Fracture Gradient Readings
- Attachment 6 – Graphical Representation of Fluid Electrical Conductivity Readings from Injection and Observations Wells
- Attachment 7 – Time versus Concentration Plots of Select Groundwater Parameters, Placeholder – Not Applicable for this Monitoring Period
- Attachment 8 – Groundwater Elevation Contour Maps, Placeholder – Not Applicable for this Monitoring Period
- Attachment 9 – Table of Wells in the Discharge Impact Area
- Attachment 10 – Groundwater Sampling Results for POC Wells, Placeholder – Not Applicable for this Monitoring Period
- Attachment 11 – Resource Block Status Report
- Attachment 12 – Monthly ISCR Wellfield Water Analytical Results, Placeholder – Not Applicable for this Monitoring Period
- Attachment 13 – Well Abandonment Report, Placeholder – Not Applicable for this Monitoring Period

FIGURES





ATTACHMENT 1

Graphical Representation of Injected and Recovered Volumes

DECEMBER 2020 DAILY INJECTION AND RECOVERY

VOLUMES WITH PERCENT RECOVERY

FLORENCE COPPER INC.

FLORENCE, ARIZONA

Table 1. December 2020 Daily Injection and Recovery Volumes

Date	Daily Injection Volume (gallons)	Daily Recovery Volume (gallons)	Ratio PLS/Raff	% Recovery
12/9/2020	155,700	173,800	1.12	112
12/10/2020	155,400	172,600	1.11	111
12/11/2020	156,000	174,400	1.12	112
12/12/2020	156,200	174,300	1.12	112
12/13/2020	156,600	174,000	1.11	111
12/14/2020	155,700	174,500	1.12	112
12/15/2020	156,000	173,800	1.11	111
12/16/2020	156,100	173,900	1.11	111
12/17/2020	156,200	174,100	1.11	111
12/18/2020	156,400	173,400	1.11	111
12/19/2020	156,100	174,500	1.12	112
12/20/2020	156,000	174,200	1.12	112
12/21/2020	156,500	173,900	1.11	111
12/22/2020	156,100	174,300	1.12	112
12/23/2020	156,000	174,300	1.12	112
12/24/2020	156,000	174,000	1.12	112
12/25/2020	155,700	174,100	1.12	112
12/26/2020	155,700	174,100	1.12	112
12/27/2020	156,100	173,900	1.11	111
12/28/2020	155,700	174,400	1.12	112
12/29/2020	155,400	173,300	1.12	112
12/30/2020	155,400	174,200	1.12	112
12/31/2020	155,500	174,100	1.12	112
DEC Averages	155,935	174,004	1.12	112

DEC Averages	Monthly Average Injection Volume (GPM)	Monthly Average Recovery Volume (GPM)
	108	121

Notes:

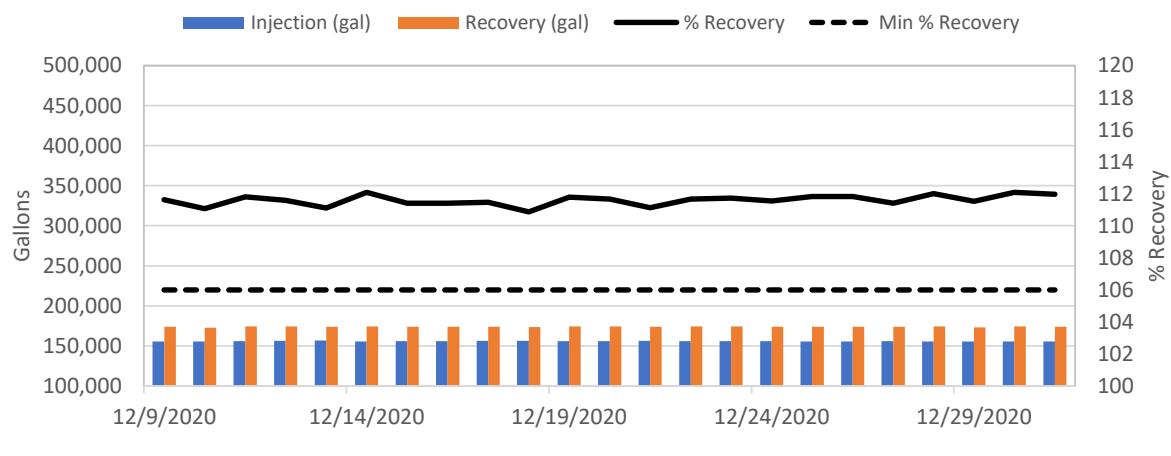
% = percent

GPM = gallons per minute

PLS = pregnant leach solution

Raff = raffinate

Figure 1. Injection vs. Recovery Volumes - December



ATTACHMENT 2

Graphical Representation of the Hydraulic Gradient in the ISCR Wellfield

DECEMBER 2020 HYDRAULIC GRADIENT, DAILY AVERAGE WATER LEVEL ELEVATIONS,

OBSERVATION AND RECOVERY WELLS

FLORENCE COPPER INC.

FLORENCE, ARIZONA

Table 1. December 2020 Daily Average Water Level Elevations

Date	R-01	O-01	O-07	R-02	O-01	O-02	R-03	O-02	O-03	R-04	O-03	R-05	O-04	R-06	O-04	O-05	R-07	O-05	O-06	R-08	O-06	O-07	R-09
12/9/2020	1233.59	1247.27	1247.11	1232.15	1247.27	1249.09	1129.75	1249.09	1247.74	1167.36	1247.74	1199.53	1247.01	1215.35	1247.01	1256.39	1243.34	1256.39	1246.37	1234.65	1246.37	1247.11	1218.25
12/10/2020	1234.63	1247.86	1248.25	1232.35	1247.86	1249.55	1130.08	1249.55	1248.22	1167.34	1248.22	1201.22	1248.28	1213.25	1248.28	1250.19	1244.84	1250.19	1247.76	1236.31	1247.76	1248.25	1219.62
12/11/2020	1235.03	1247.81	1248.66	1231.23	1247.81	1249.38	1130.26	1249.38	1247.55	1166.84	1247.55	1202.47	1248.98	1212.73	1248.98	1249.36	1245.62	1249.36	1248.40	1236.58	1248.40	1248.66	1220.14
12/12/2020	1235.52	1248.49	1249.02	1231.75	1248.49	1249.86	1130.36	1249.86	1248.15	1167.06	1248.15	1202.95	1249.45	1213.41	1249.45	1249.83	1246.09	1249.83	1248.84	1236.99	1248.84	1249.02	1220.64
12/13/2020	1236.01	1249.18	1249.25	1232.76	1249.18	1250.38	1130.42	1250.38	1248.64	1167.43	1248.64	1203.28	1249.91	1214.51	1249.91	1250.31	1246.51	1250.31	1249.32	1237.77	1249.32	1249.25	1221.22
12/14/2020	1236.10	1249.52	1249.44	1233.01	1249.52	1250.56	1130.50	1250.56	1248.66	1167.53	1248.66	1203.35	1250.13	1214.54	1250.13	1250.45	1246.60	1250.45	1249.48	1237.94	1249.48	1249.44	1221.32
12/15/2020	1236.26	1249.81	1249.56	1233.34	1249.81	1250.73	1130.55	1250.73	1248.91	1167.63	1248.91	1203.64	1250.28	1214.75	1250.28	1250.62	1246.79	1250.62	1249.62	1238.16	1249.62	1249.56	1221.48
12/16/2020	1236.27	1250.11	1249.51	1233.63	1250.11	1250.80	1130.56	1250.80	1248.88	1167.96	1248.88	1203.34	1250.05	1214.86	1250.05	1250.60	1246.76	1250.60	1249.61	1238.26	1249.61	1249.51	1221.57
12/17/2020	1236.00	1250.25	1249.52	1235.15	1250.25	1250.79	1130.05	1250.79	1248.95	1169.13	1248.95	1200.57	1250.11	1217.45	1250.11	1250.59	1246.50	1250.59	1249.62	1238.98	1249.62	1249.52	1221.71
12/18/2020	1236.56	1250.55	1249.93	1233.42	1250.55	1250.95	1130.79	1250.95	1249.08	1167.80	1249.08	1204.45	1243.85	1214.29	1243.85	1250.74	1247.03	1250.74	1249.80	1238.20	1249.80	1249.93	1221.84
12/19/2020	1236.43	1250.73	1249.98	1233.41	1250.73	1250.95	1130.63	1250.95	1249.12	1167.89	1249.12	1203.48	1240.30	1214.73	1240.30	1250.75	1246.97	1250.75	1249.81	1238.37	1249.81	1249.98	1221.91
12/20/2020	1236.44	1250.86	1249.96	1233.47	1250.86	1250.93	1130.62	1250.93	1248.94	1168.08	1248.94	1203.72	1240.33	1215.00	1240.33	1250.73	1246.96	1250.73	1249.81	1238.43	1249.81	1249.96	1221.89
12/21/2020	1236.51	1251.01	1249.96	1233.46	1251.01	1250.93	1130.76	1250.93	1249.01	1168.25	1249.01	1204.28	1240.37	1214.75	1240.37	1250.73	1246.97	1250.73	1249.78	1238.26	1249.78	1249.96	1221.90
12/22/2020	1236.62	1251.14	1250.08	1230.10	1251.14	1250.94	1130.66	1250.94	1249.10	1167.81	1249.10	1203.95	1240.38	1209.80	1240.38	1250.80	1247.10	1250.80	1249.98	1237.20	1249.98	1250.08	1221.98
12/23/2020	1236.74	1251.58	1250.27	1234.07	1251.58	1251.25	1130.64	1251.25	1249.37	1168.11	1249.37	1203.64	1240.66	1215.35	1240.66	1251.07	1247.29	1251.07	1250.15	1238.85	1250.15	1250.27	1222.14
12/24/2020	1237.02	1251.83	1250.46	1233.98	1251.83	1251.42	1130.79	1251.42	1249.46	1168.06	1249.46	1204.48	1240.88	1215.38	1240.88	1251.29	1247.52	1251.29	1250.35	1239.03	1250.35	1250.46	1222.44
12/25/2020	1237.19	1252.10	1250.54	1234.01	1252.10	1251.55	1130.85	1251.55	1249.52	1167.98	1249.52	1204.70	1240.98	1215.30	1240.98	1251.35	1247.65	1251.35	1250.43	1239.08	1250.43	1250.54	1222.54
12/26/2020	1237.11	1252.24	1250.59	1234.33	1252.24	1251.57	1130.79	1251.57	1249.56	1168.04	1249.56	1204.39	1241.06	1215.61	1241.06	1251.41	1247.64	1251.41	1250.48	1239.28	1250.48	1250.59	1222.61
12/27/2020	1237.19	1252.38	1250.65	1234.45	1252.38	1251.70	1131.72	1251.70	1249.54	1166.88	1249.54	1204.12	1241.12	1215.60	1241.12	1251.50	1247.69	1251.50	1250.57	1239.33	1250.57	1250.65	1222.69
12/28/2020	1236.51	1252.49	1250.43	1235.21	1252.49	1251.73	1140.61	1251.73	1249.97	1168.90	1249.97	1199.68	1241.13	1219.12	1241.13	1251.39	1247.14	1251.39	1250.39	1239.06	1250.39	1250.43	1221.56
12/29/2020	1236.81	1251.80	1250.25	1233.24	1251.80	1250.59	1154.90	1250.59	1248.58	1167.84	1248.58	1205.28	1241.01	1214.43	1241.01	1251.19	1247.47	1251.19	1250.18	1238.68	1250.18	1250.25	1222.11
12/30/2020	1237.31	1252.67	1250.68	1234.31	1252.67	1251.72	1157.50	1251.72	1249.56	1168.33	1249.56	1204.52	1241.27	1215.36	1241.27	1251.53	1247.77	1251.53	1250.59	1239.24	1250.59	1250.68	1222.58
12/31/2020	1236.38	1252.60	1250.59	1229.28	1252.60	1251.56	1157.42	1251.56	1249.79	1168.32	1249.79	1204.27	1241.30	1215.73	1241.30	1251.56	1247.76	1251.56	1250.65	1239.59	1250.65	1250.59	1225.50

Notes:

All measurements in elevation above mean sea level.

Hydraulic Gradient - Daily Average Water Level Elevations - Observation and Recovery Wells

Figure 1a. December 2020 Water Levels

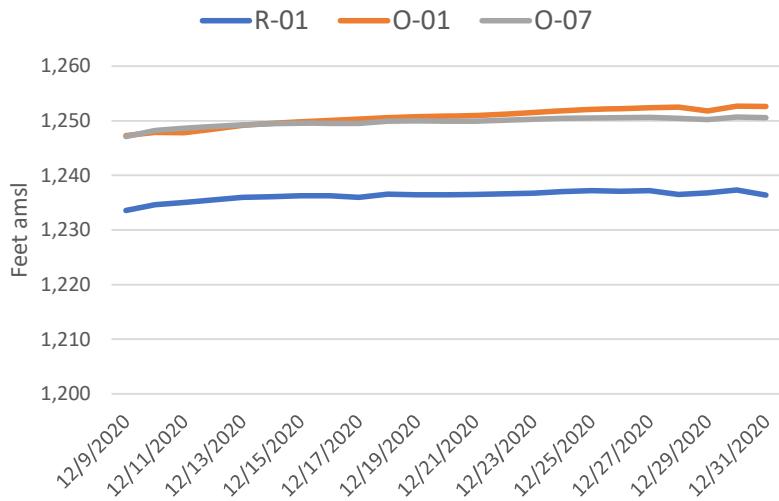


Figure 1b. December 2020 Water Levels

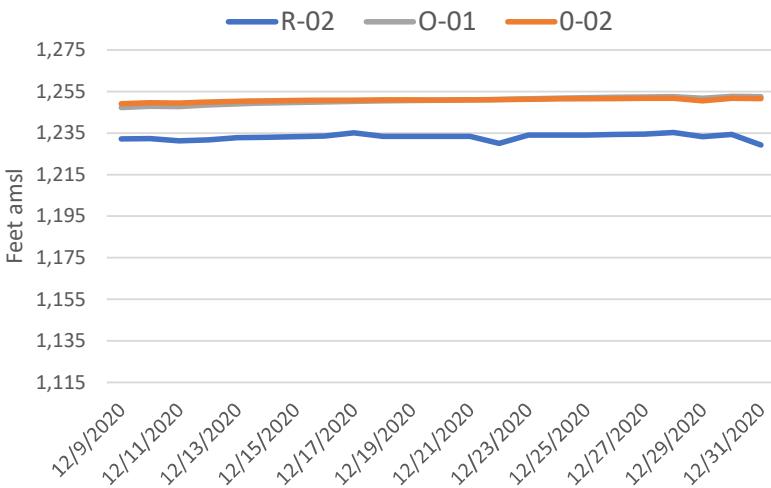


Figure 1c. December 2020 Water Levels

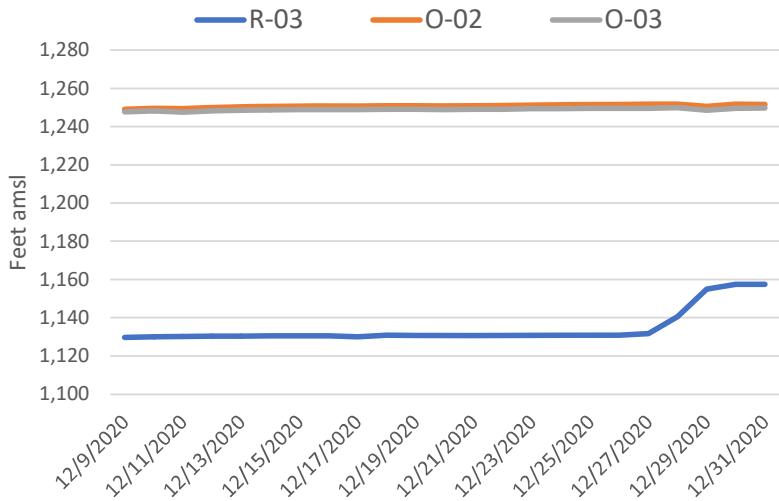
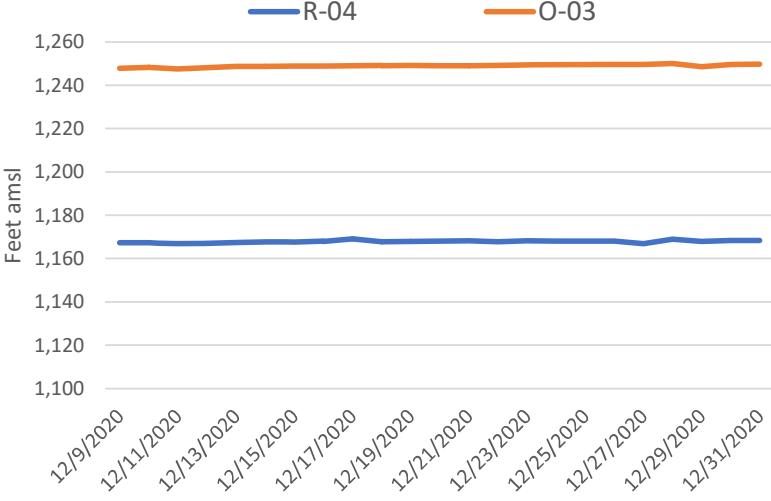


Figure 1d. December 2020 Water Levels



Hydraulic Gradient - Daily Average Water Level Elevations - Observation and Recovery Wells

Figure 1e. December 2020 Water Levels

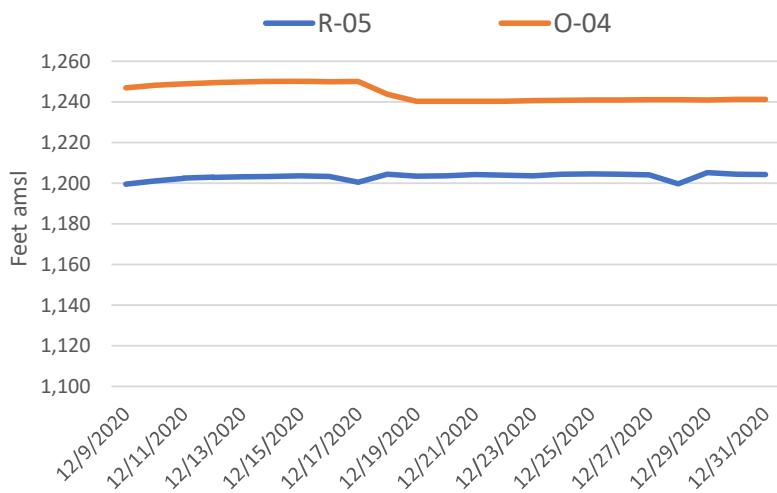


Figure 1f. December 2020 Water Levels

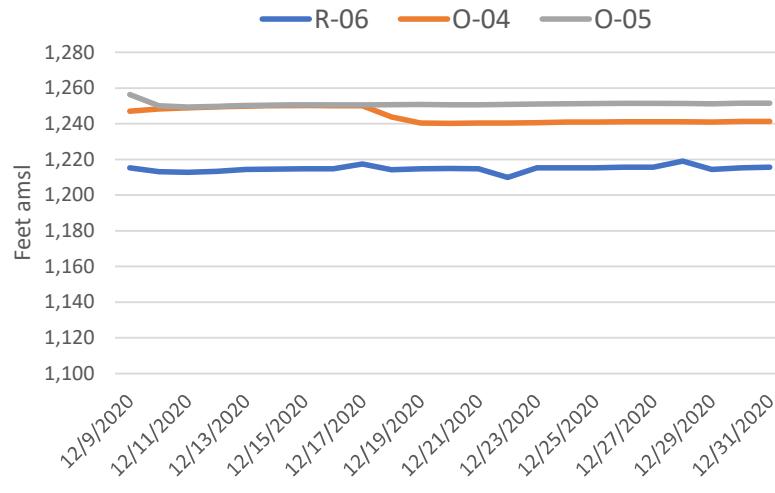


Figure 1g. December 2020 Water Levels

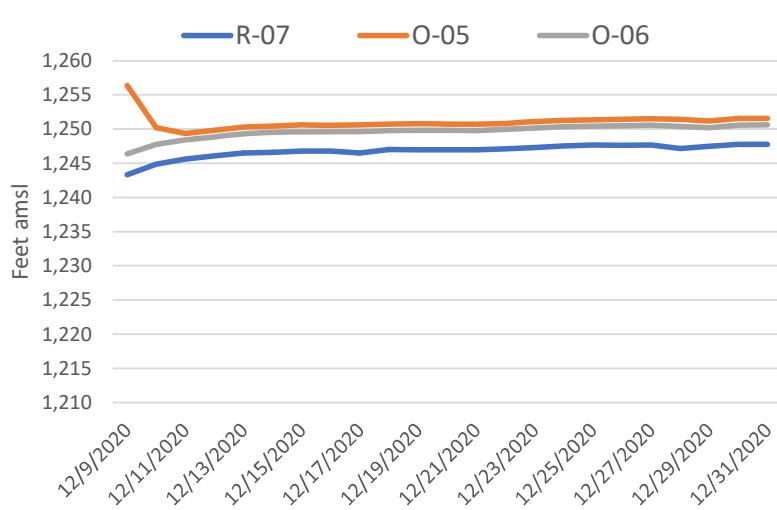
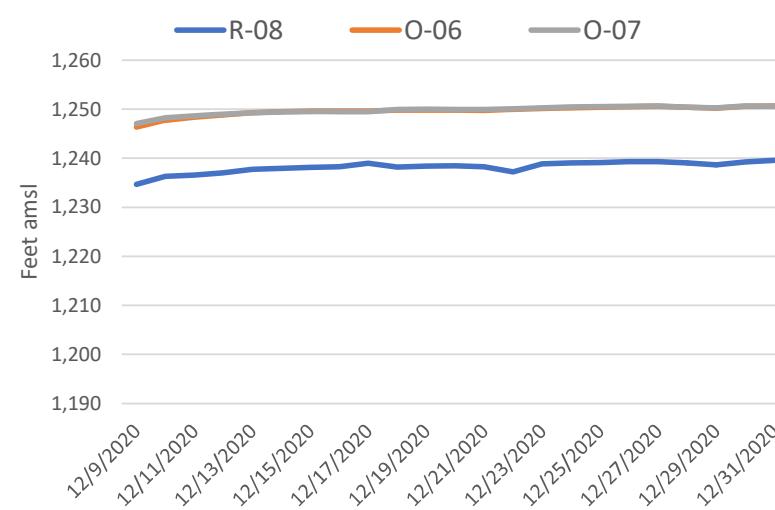


Figure 1h. December 2020 Water Levels



DECEMBER 2020 DAILY HYDRAULIC GRADIENT FOR RECOVERY WELL PAIRINGS

FLORENCE COPPER INC.

FLORENCE, ARIZONA

Table 2. December 2020 Daily Hydraulic Gradient for PTF Recovery Well Pairings

Date	R-01		R-02		R-03		R-04	R-05	R-06		R-07		R-08		All Gradients > 1 foot?
	O-01	O-07	O-01	O-02	O-02	O-03	O-03	O-04	O-04	O-05	O-05	O-06	O-06	O-07	
12/9/2020	13.68	13.52	15.11	16.93	119.34	117.99	80.38	47.48	31.66	41.04	13.05	3.03	11.72	12.45	Yes
12/10/2020	13.23	13.62	15.51	17.20	119.46	118.14	80.88	47.06	35.04	36.94	5.35	2.92	11.45	11.94	Yes
12/11/2020	12.78	13.63	16.58	18.15	119.12	117.29	80.71	46.51	36.25	36.63	3.74	2.78	11.82	12.08	Yes
12/12/2020	12.97	13.50	16.74	18.11	119.50	117.79	81.09	46.50	36.04	36.42	3.74	2.75	11.85	12.03	Yes
12/13/2020	13.18	13.25	16.43	17.62	119.96	118.22	81.22	46.63	35.39	35.80	3.80	2.81	11.55	11.49	Yes
12/14/2020	13.42	13.34	16.51	17.55	120.06	118.16	81.13	46.78	35.59	35.91	3.85	2.88	11.54	11.50	Yes
12/15/2020	13.55	13.30	16.47	17.40	120.19	118.36	81.28	46.64	35.53	35.87	3.83	2.83	11.46	11.40	Yes
12/16/2020	13.84	13.24	16.47	17.17	120.24	118.32	80.92	46.71	35.19	35.74	3.83	2.85	11.35	11.24	Yes
12/17/2020	14.25	13.52	15.11	15.65	120.74	118.90	79.82	49.54	32.66	33.14	4.10	3.12	10.63	10.54	Yes
12/18/2020	13.99	13.37	17.13	17.53	120.16	118.29	81.28	39.40	29.56	36.45	3.71	2.77	11.60	11.73	Yes
12/19/2020	14.30	13.55	17.32	17.54	120.32	118.49	81.23	36.82	25.57	36.02	3.78	2.84	11.44	11.61	Yes
12/20/2020	14.43	13.52	17.39	17.46	120.31	118.32	80.86	36.61	25.33	35.73	3.78	2.85	11.38	11.53	Yes
12/21/2020	14.50	13.44	17.55	17.47	120.17	118.25	80.76	36.09	25.62	35.98	3.76	2.81	11.52	11.69	Yes
12/22/2020	14.52	13.45	21.04	20.84	120.28	118.44	81.29	36.43	30.58	41.00	3.70	2.88	12.78	12.88	Yes
12/23/2020	14.84	13.52	17.51	17.17	120.60	118.73	81.26	37.01	25.31	35.72	3.79	2.86	11.29	11.42	Yes
12/24/2020	14.81	13.44	17.85	17.44	120.63	118.67	81.40	36.40	25.50	35.91	3.77	2.83	11.32	11.43	Yes
12/25/2020	14.91	13.35	18.09	17.54	120.70	118.67	81.54	36.28	25.68	36.05	3.70	2.78	11.35	11.46	Yes
12/26/2020	15.13	13.48	17.91	17.24	120.78	118.77	81.52	36.67	25.45	35.80	3.77	2.84	11.20	11.31	Yes
12/27/2020	15.19	13.45	17.93	17.25	119.98	117.82	82.66	37.01	25.52	35.90	3.80	2.88	11.24	11.32	Yes
12/28/2020	15.99	13.92	17.29	16.52	111.12	109.37	81.08	41.46	22.01	32.27	4.25	3.25	11.34	11.37	Yes
12/29/2020	14.99	13.44	18.56	17.35	95.69	93.68	80.73	35.73	26.57	36.76	3.73	2.71	11.50	11.57	Yes
12/30/2020	15.36	13.37	18.36	17.41	94.22	92.05	81.23	36.75	25.91	36.18	3.76	2.82	11.35	11.44	Yes
12/31/2020	16.22	14.21	23.32	22.28	94.14	92.37	81.47	37.03	25.57	35.83	3.80	2.89	11.06	11.00	Yes

Notes:

All gradient values are in feet and calculated by subtracting the recovery well groundwater elevation from the paired observation well groundwater elevation.

Groundwater elevations are presented in Table 1.

All measurements in elevation above mean sea level.

Hydraulic Gradient - Daily Average Water Level Elevations - Observation and Recovery Wells

Figure 1i. Hydraulic Gradient for Wells Paired with R-01

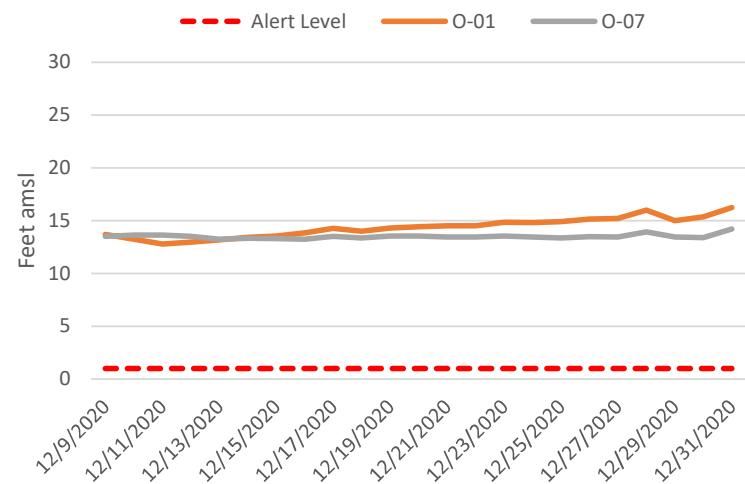


Figure 1j. Hydraulic Gradient for Wells Paired with R-02

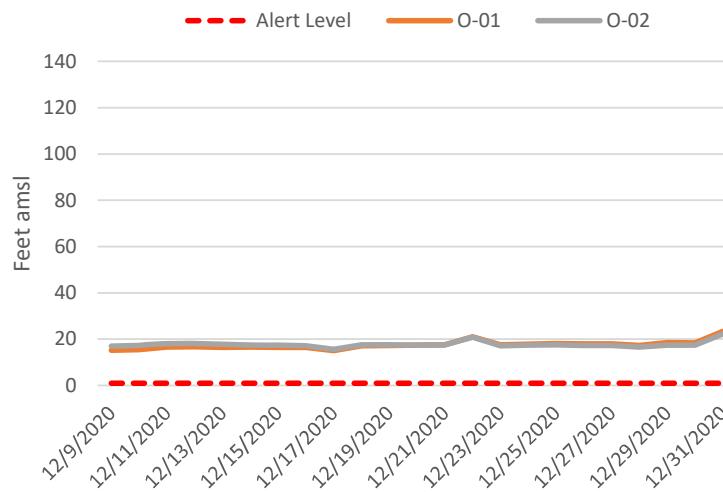


Figure 1k. Hydraulic Gradient for Wells Paired with R-03

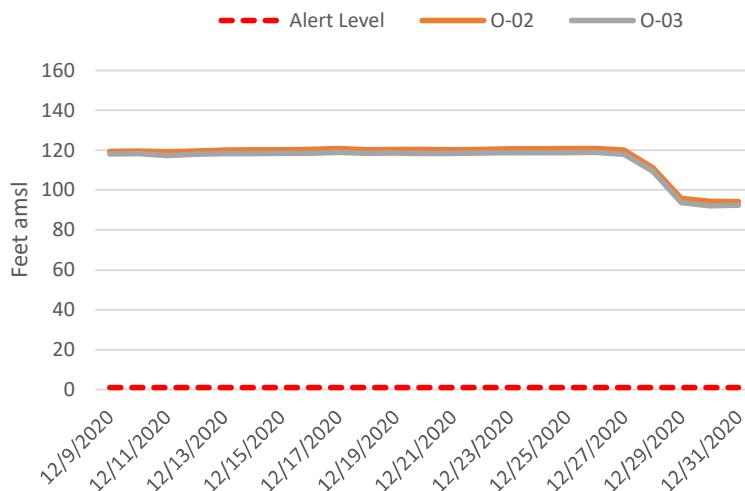
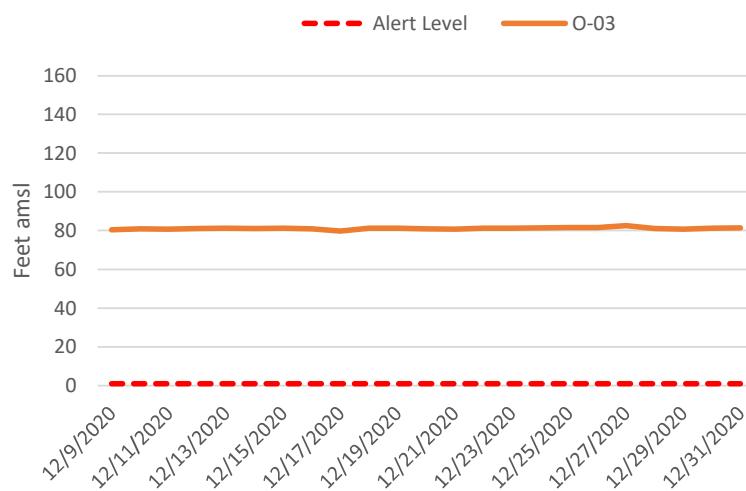


Figure 1l. Hydraulic Gradient for Wells Paired with R-04



Hydraulic Gradient - Daily Average Water Level Elevations - Observation and Recovery Wells

Figure 1m. Hydraulic Gradient for Wells Paired with R-05

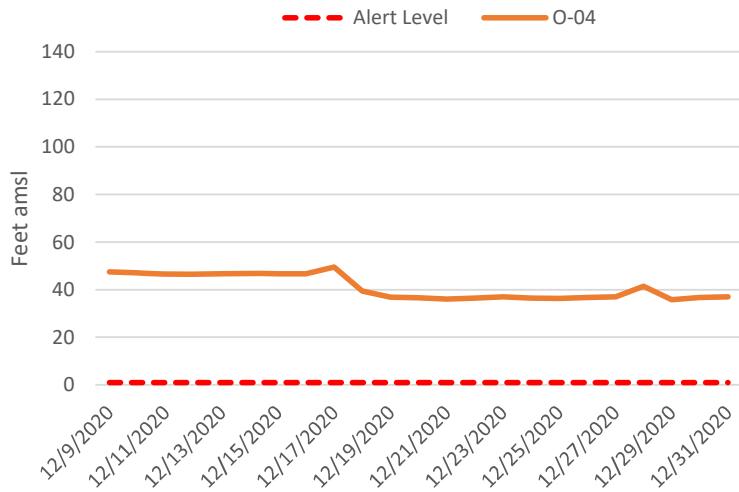


Figure 1n. Hydraulic Gradient for Wells Paired with R-06

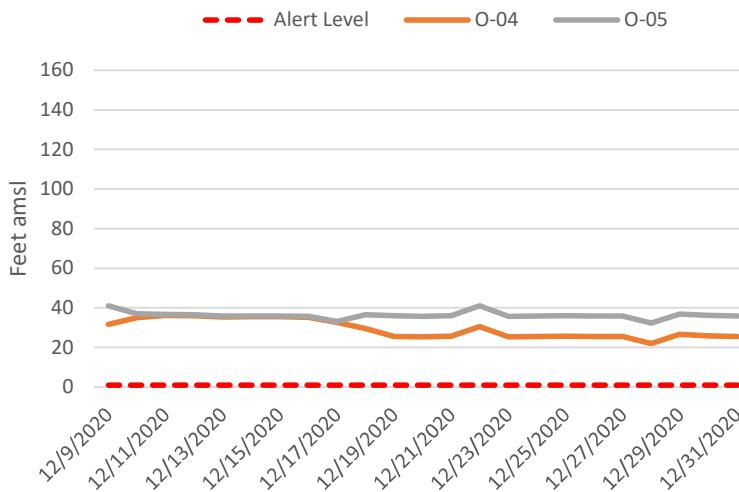


Figure 1o. Hydraulic Gradient for Wells Paired with R-07

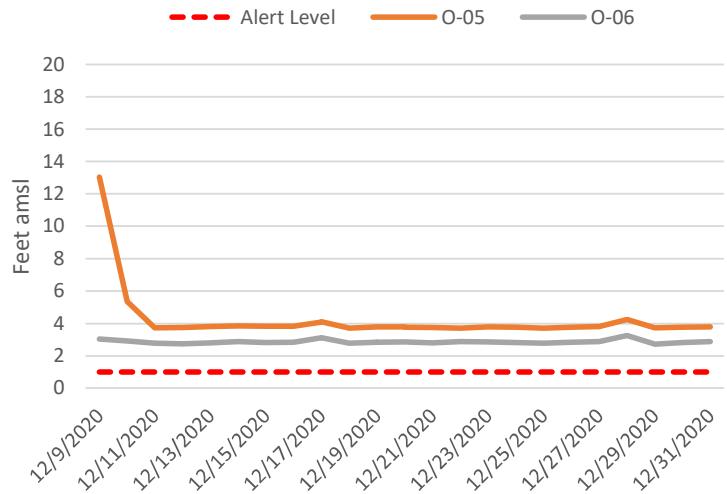
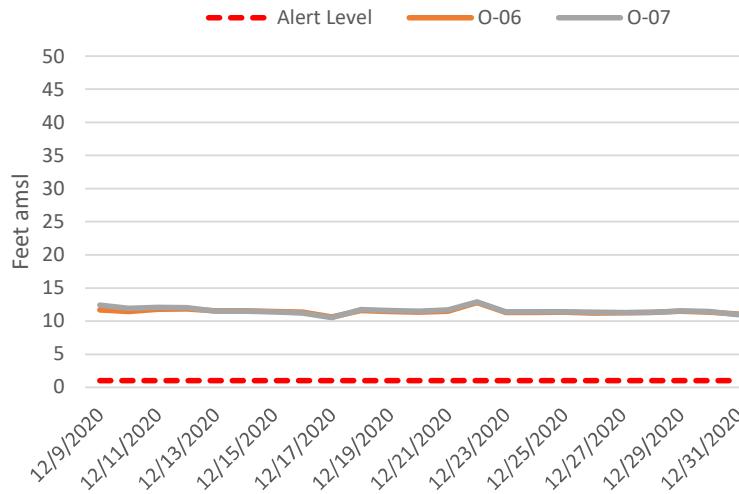


Figure 1p. Hydraulic Gradient for Wells Paired with R-08



ATTACHMENT 3

Monthly Potentiometric Surface Maps
(Placeholder – Not Applicable for this Monitoring Period)

ATTACHMENT 4

**Well Bore Annular Conductivity Device (ACD) Readings
(Placeholder – Not Applicable for this Monitoring Period)**

ATTACHMENT 5

Summary of Pressure Transducer and Fracture Gradient Readings

DECEMBER 2020 DAILY WELLHEAD PRESSURES - INJECTION WELLS

FLORENCE COPPER INC.

FLORENCE, ARIZONA

Table 1. December 2020 Daily Wellhead Pressures - Injection Wells

Date	I-01			I-02			I-03			I-04			Fracture Gradient
	Avg	Min	Max										
12/9/2020	0.01	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/10/2020	0.00	0.00	0.04	0.00	0.00	0.00	0.01	0.00	0.03	0.00	0.00	0.00	112.89
12/11/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	112.89
12/12/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	112.89
12/13/2020	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	112.89
12/14/2020	0.01	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	112.89
12/15/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	112.89
12/16/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	112.89
12/17/2020	0.01	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	112.89
12/18/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	112.89
12/19/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	112.89
12/20/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	112.89
12/21/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	112.89
12/22/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	112.89
12/23/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	112.89
12/24/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	112.89
12/25/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	112.89
12/26/2020	0.01	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	112.89
12/27/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.01	0.00	0.03	0.00	0.00	0.00	112.89
12/28/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	112.89
12/29/2020	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	112.89
12/30/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	112.89
12/31/2020	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	112.89

Notes:

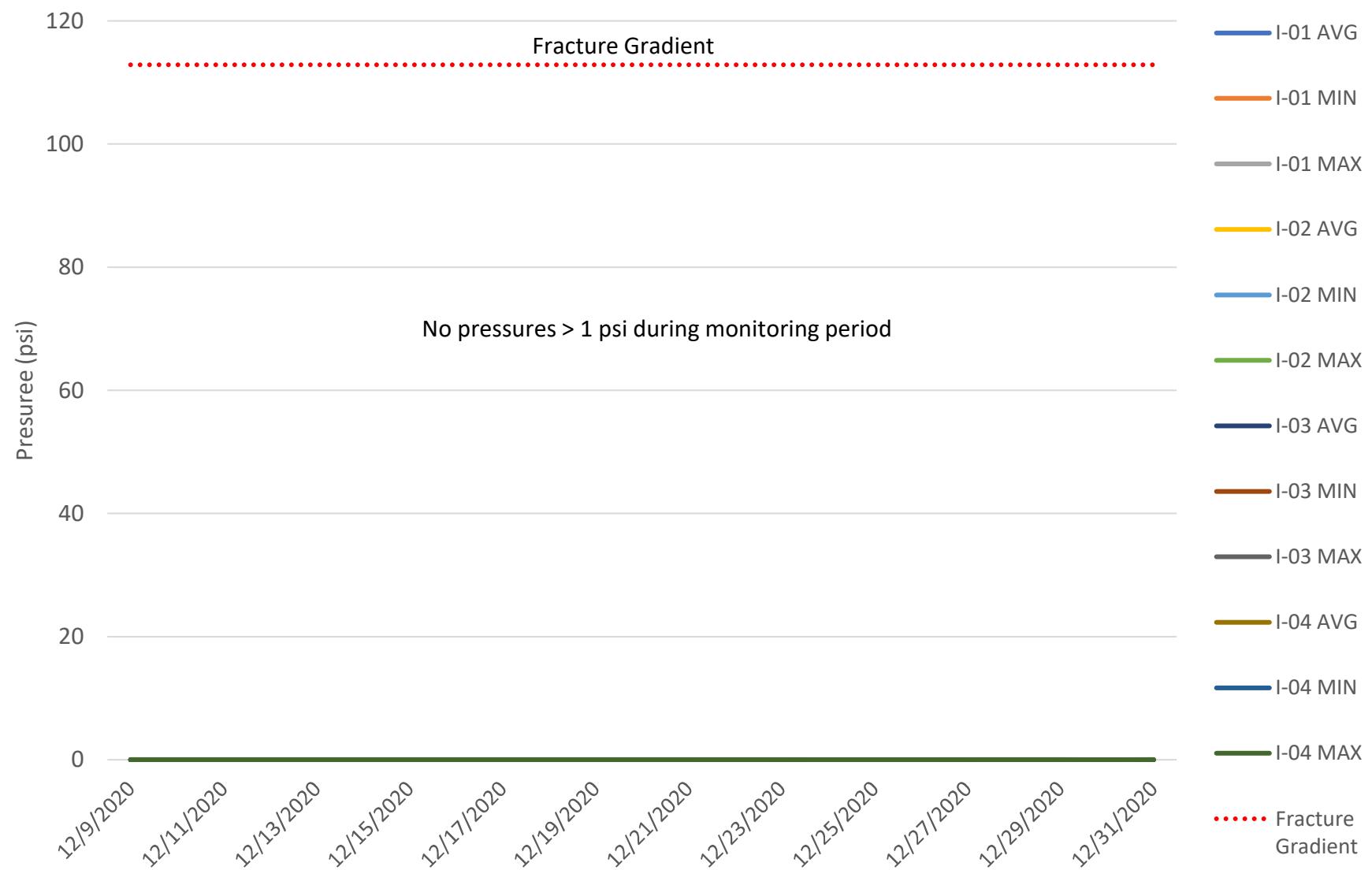
All measurements in pounds per square inch (psi)

Calculation of Pressure Allowed at the Wellhead from the Allowed Fracture Gradient

P-Wellhead = P-TOS - P-Col = [P-Frac x D-TOS] - [D-TOS / Conv] Where:

P-Fracture	= Pressure allowed at the top of the injection well screen (TOS)	=	0.65	psi/foot of depth
D-TOS	= Depth to top of injection well screens	=	520	feet
P-TOS	= Total pressure allowed at top of screen = P-Fracture x D-TOS	= 0.65 psi/foot x 520 feet	338	psi
Conv	= Feet of Water per psi	=	2.31	feet/psi
P-Col	= Pressure from weight of water column at TOS	= 520 feet / 2.31 feet/psi	225.11	psi
P-Wellhead	= Allowable pressure at the top of the wellhead = P-TOS - P-Col	= 338 psi - 255.1 psi	112.89	psi

Figure 1. Daily Wellhead Pressures - Injection Wells



DECEMBER 2020 DAILY CASING ANNULUS PRESSURES - INJECTION WELLS

FLORENCE COPPER INC.

FLORENCE, ARIZONA

Table 2. December 2020 Daily Casing Annulus Pressures - Injection Wells

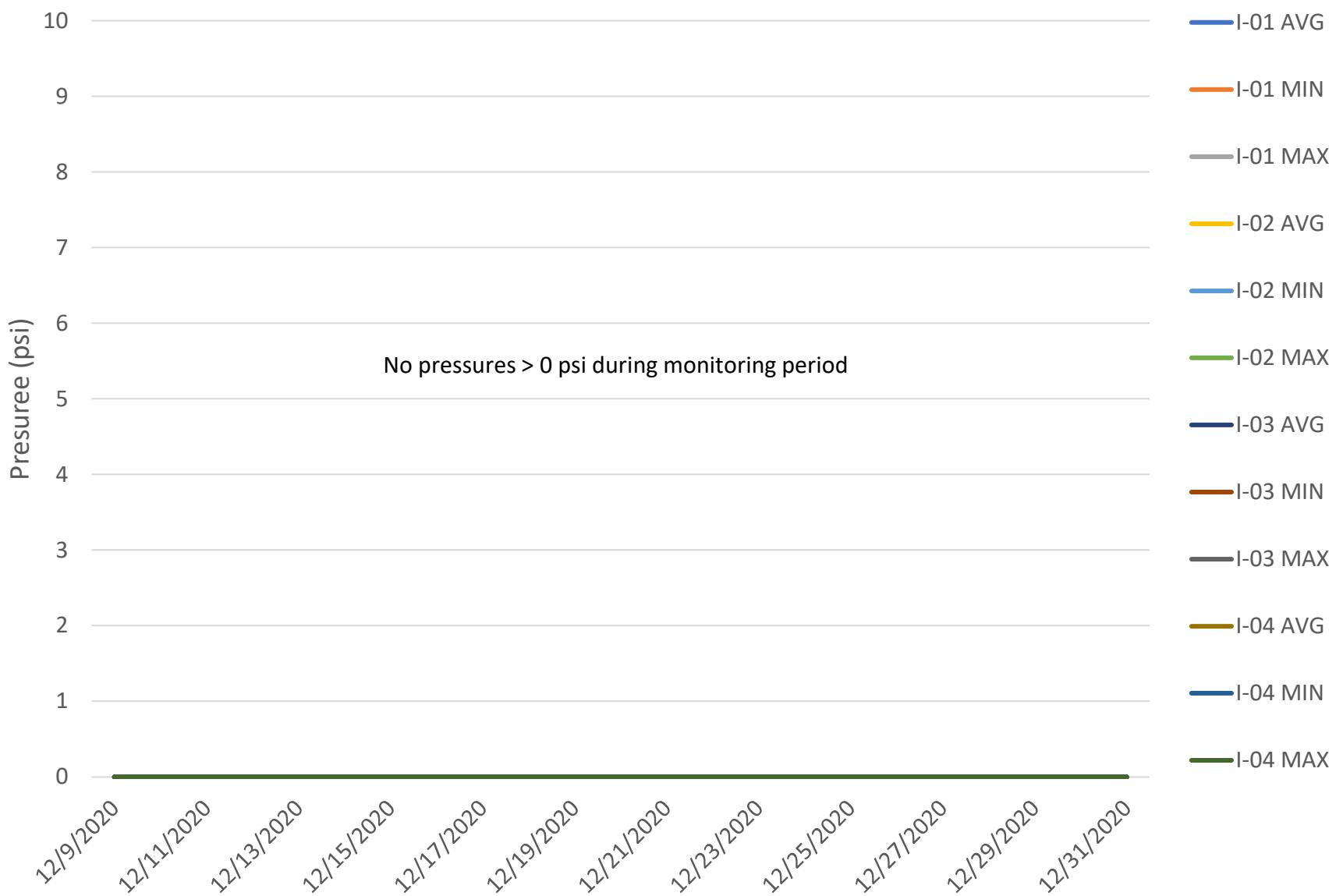
Date	I-01			I-02			I-03			I-04			Fracture Gradient
	Avg	Min	Max										
12/9/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/10/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/11/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/12/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/13/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/14/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/15/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/16/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/17/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/18/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/19/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/20/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/21/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/22/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/23/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/24/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/25/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/26/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/27/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/28/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/29/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/30/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/31/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89

Notes:

All measurements in pounds per square inch (psi)

There were no casing annulus pressures >0 during the monitoring period

Figure 2. Daily Casing Annulus Pressures - Injection Wells



ATTACHMENT 6

Graphical Representation of Fluid Electrical Conductivity Readings from Injection and Observations Wells

DECEMBER 2020 DAILY FLUID ELECTRICAL CONDUCTIVITY

INJECTION AND OBSERVATION WELLS

FLORENCE COPPER INC.

FLORENCE, ARIZONA

Table 1. December 2020 Daily Fluid Electrical Conductivity Readings

Date	I-01	I-02	I-03	I-04	O-01	O-02	O-03	O-04	O-05	O-06	O-07
12/9/2020	6317	6383	6541	ND	4830	7815	8044	5854	2438	6375	3356
12/10/2020	6324	6368	6573	ND	4803	7866	7578	5635	2389	4490	4985
12/11/2020	5835	6005	5981	5907	4858	7401	5634	7801	2631	3389	4829
12/12/2020	6032	6165	6140	6180	4870	7978	7332	5248	2601	3455	4235
12/13/2020	6216	6353	6333	6375	5020	8234	7400	5250	2629	3338	4561
12/14/2020	6278	6345	6314	6233	4828	7753	7390	5234	2760	3020	4712
12/15/2020	6317	6428	6395	6389	5010	7818	7359	5138	2826	2980	4511
12/16/2020	6609	6677	6530	6823	4936	8039	7930	5618	2871	2958	4915
12/17/2020	6396	6316	6499	6444	5091	7978	8185	5607	2887	2903	4725
12/18/2020	7170	7101	7156	7170	4983	7556	8118	ND	2706	2871	4879
12/19/2020	6315	6839	6823	6862	4928	7657	8220	ND	2831	3142	4988
12/20/2020	7272	7151	7135	7089	4944	7639	8277	2328	2882	3270	4838
12/21/2020	6945	7125	7014	7035	5176	8042	8456	2390	2890	3424	5160
12/22/2020	6404	6295	2793	6242	5209	8105	7750	2364	2872	3375	5188
12/23/2020	7186	6883	7189	7161	4929	7733	7572	2191	2778	3126	4952
12/24/2020	7417	7208	7286	7277	4793	7824	7939	2195	2749	3118	5012
12/25/2020	7470	7414	7437	7440	4968	7936	7985	2216	2657	3296	5232
12/26/2020	6978	4942	6890	6958	5173	8214	8299	2310	2962	3449	5433
12/27/2020	6888	6958	3474	6999	5222	7764	8465	2301	2913	3402	5301
12/28/2020	6978	4942	6890	6958	5210	7969	7593	2290	3235	3419	6156
12/29/2020	7156	6985	7141	7026	5266	8081	7588	2324	2943	3420	5546
12/30/2020	6775	6795	6738	6713	5112	8295	7725	2300	2948	3375	5480
12/31/2020	7039	7045	7128	7131	5238	7461	6912	1995	2730	3150	5137

Notes:

All measurements in microsemens per centimeter ($\mu\text{S}/\text{cm}$)

ND = No data available

12/9/20 - 12/10/20 - I-04 was down for MIT

12/18/20 - 12/19/20 - O-04 was out down for bladder pump repairs

Figure 1. Daily Fluid Electrical Conductivity in Injection and Observation Wells - December 2020

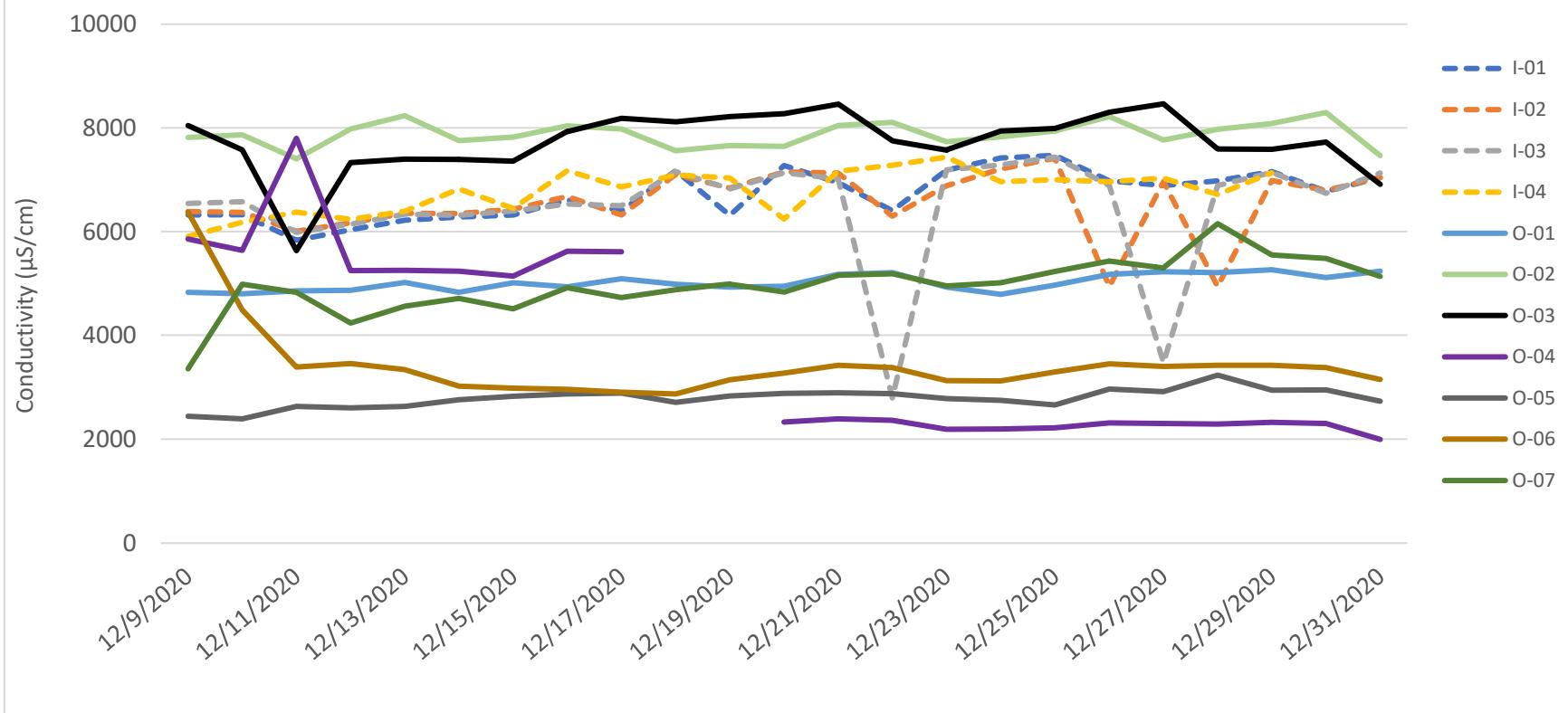
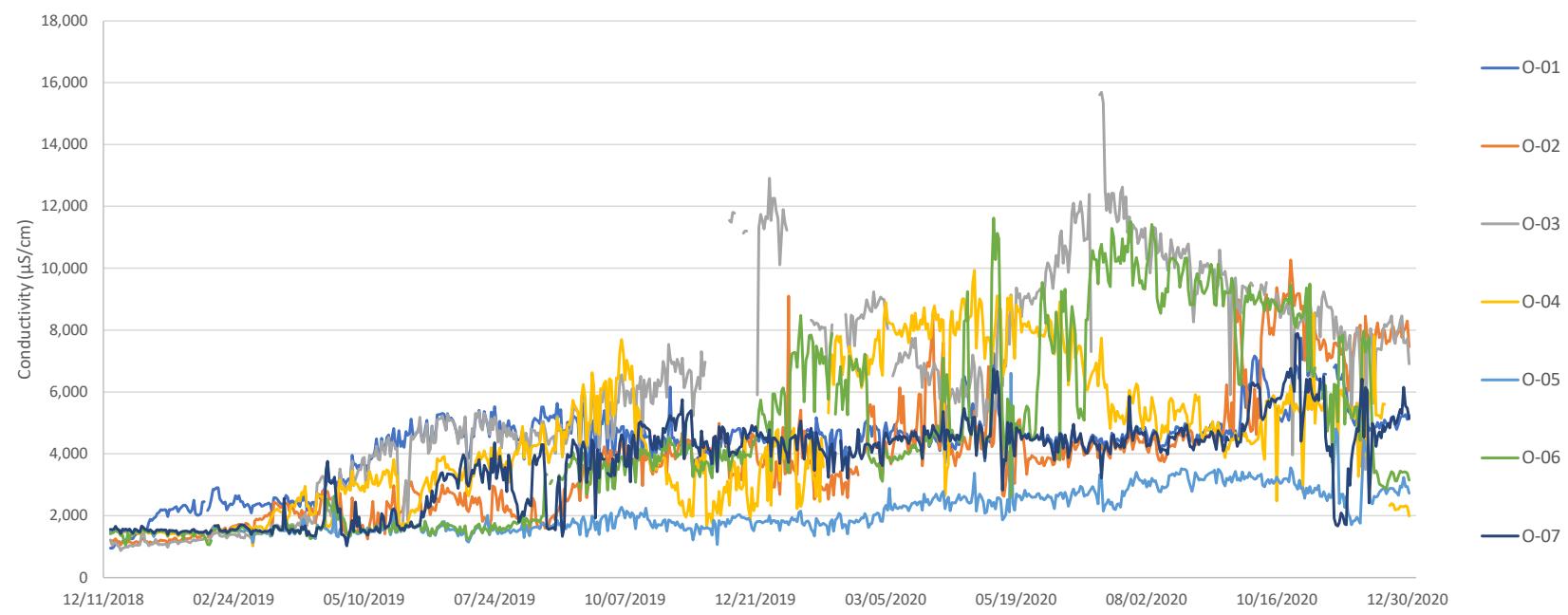


Figure 2. Daily Fluid Conductivity in Observation Wells Over Past 9 Calendar Quarters



ATTACHMENT 7

**Time versus Concentration Plots of Select Groundwater Parameters
(Placeholder – Not Applicable for this Monitoring Period)**

ATTACHMENT 8

Groundwater Elevation Contour Maps
(Placeholder – Not Applicable for this Monitoring Period)

ATTACHMENT 9

Table of Wells in the Discharge Impact Area

DECEMBER 2020 MONITORING WELLS WITHIN

THE DISCHARGE IMPACT AREA

FLORENCE COPPER INC.

FLORENCE, ARIZONA

Table 1. Monitoring Wells Within the Discharge Impact Area

Well ID	Latitude	Longitude	Well Depth (feet)	Depth to Water ⁽¹⁾	Water Level Elevation ⁽¹⁾
M54-LBF	33°03'7.07"N	111°26'9.29"W	629	NA	NA
M54-O	33°03'6.91"N	111°26'9.22"W	1199	NA	NA
M55-UBF	33°03'1.99"N	111°26'6.18"W	261	NA	NA
M56-LBF	33°03'2.21"N	111°26'6.44"W	340	NA	NA
M57-O	33°03'1.88"N	111°26'8.39"W	1200	NA	NA
M57R-O	33°03'0.31"N	111°26'8.16"W	1200	NA	NA
M58-O	33°03'5.20"N	111°26'4.94"W	1200	NA	NA
M59-O	33°03'1.58"N	111°26'2.25"W	1200	NA	NA
M60-O	33°02'58.70"N	111°26'5.78"W	1201	NA	NA
M61-LBF	33°03'0.85"N	111°25'58.92"W	630	NA	NA
MW-01-LBF	33°03'02.9442"N	111°26'07.1046"W	440	NA	NA
MW-01-O	33°03'03.045"N	111°26'06.9786"W	1200	NA	NA
P49-O	33°02'42"N	111°26'07"W	1242	NA	NA

Notes:

(1) In accordance with the requirements of the permit, depth to water and water level elevations for the monitoring wells within the Discharge Impact Area will be collected beginning in the first full monitoring period following the permit issuance and reported in the Q1 2021 quarterly compliance report.

NA = not applicable

ATTACHMENT 10

Groundwater Sampling Results for POC Wells
(Placeholder – Not Applicable for this Monitoring Period)

ATTACHMENT 11

Resource Block Status Report

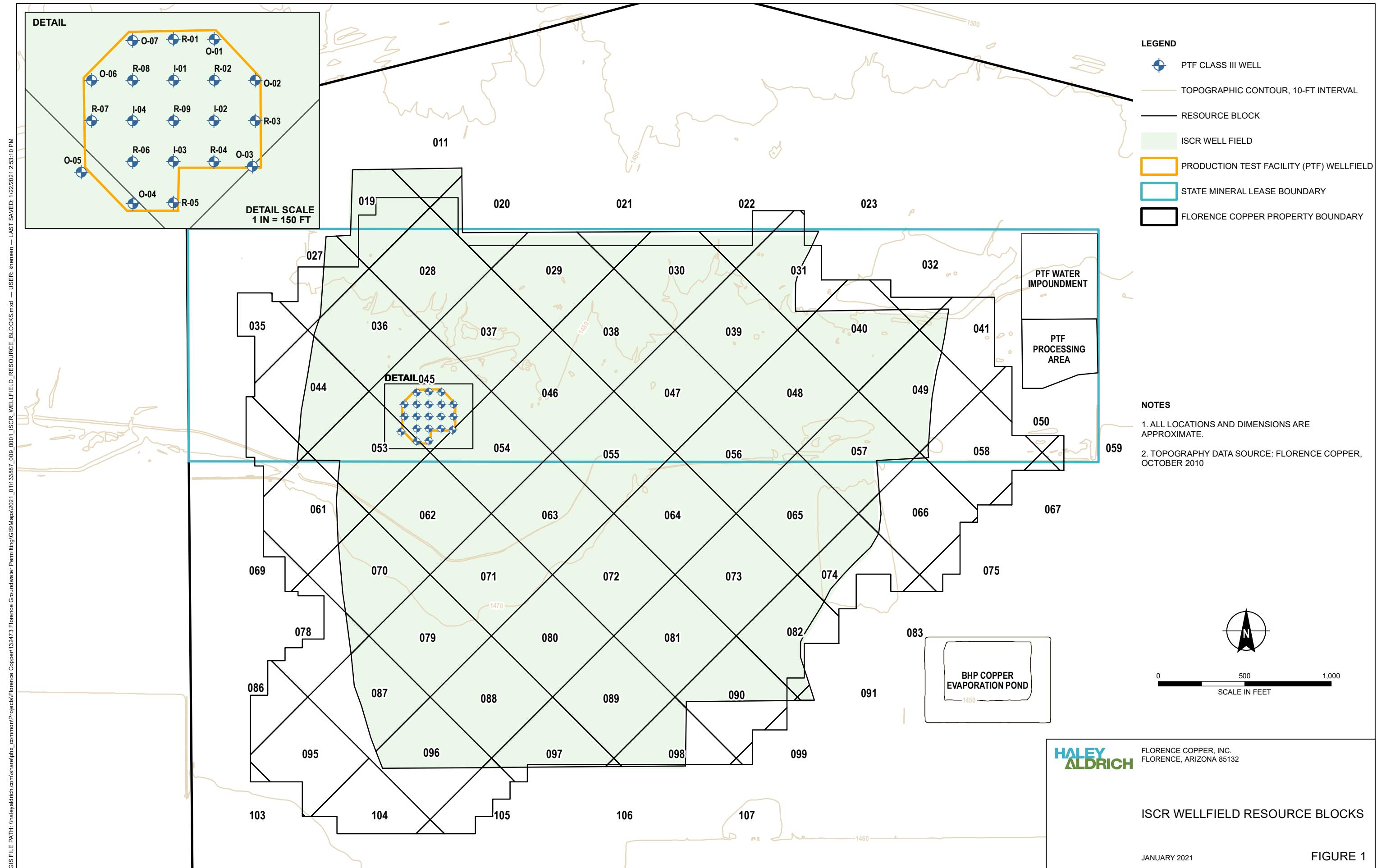
DECEMBER 2020 RESOURCE BLOCK STATUS SUMMARY

FLORENCE COPPER INC.

FLORENCE, ARIZONA

Resource Block ⁽¹⁾	Block Status	Notes
045	Rinsing	
053	Rinsing	Only those wells associated with the Production Test Facility have been constructed within the identified resource blocks.
054	Rinsing	

Notes:*Resource block numbering provided in Figure 1 attached**At this time, no other resource blocks are planned for immediate construction.*



ATTACHMENT 12

**Monthly ISCR Wellfield Water Analytical Results
(Placeholder – Not Applicable for this Monitoring Period)**

ATTACHMENT 13

Well Abandonment Report
(Placeholder – Not Applicable for this Monitoring Period)